

Has a Robotic Dog the Buddha-nature? Mu!

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Abstract

Japanese Zen Buddhism offers a perspective on human-robot interaction (HRI) that notably differs from views normally encountered in the Abrahamic religious traditions of the West. Professor Masahiro Mori's book, *The Buddha in the Robot: A Robot Engineer's Thoughts on Science and Religion*, supplies an especially clear articulation of a Buddhist vision of contemporary robotic technology. The present paper critically reviews Professor Mori's account, focusing particularly upon the important chapter of his book titled "The Buddha-nature in the Robot." Beyond the objective of helping to improve understanding of HRI in a broad multicultural context, this review aims also to identify philosophical/theological issues raised by Mori's views that appear to hold practical implications for social acceptance of the subject technology.

Introduction

The Japanese roboticist Masahiro Mori is perhaps best known for his "uncanny valley" hypothesis, according to which robots that are made *too* lifelike can provoke rejection among humans. Mori's special interest in relations between robotics and religion (specifically, Buddhism) is reflected at length in his popular book *The Buddha in the Robot: A Robot Engineer's Thoughts on Science and Religion*, first published in 1974. His continuing work with this interface of religion and technology has involved the Mukta Research Institute, as sketched in the following description by F.L. Schodt:

Mori founded the 'Jizai Kenkyuio,' or Mukta Institute, to promote his views of religion and robots. The Institute operates as a think tank, made up of technology specialists providing consultation to corporations such as Honda and Omron on automation, robotisation and product development. They promote the fusing of Japanese spirit and technology and creative thinking. Members regularly meet to recite Buddhist scriptures, meditate and consider different problems in new ways. (209-210)

Considering "different problems in new ways" happens also to be one of the natural effects of a Zen Buddhist

practice of giving students riddles known as *koans*. The following review of this practice, therefore, should furnish helpful background for understanding Mori's treatment of "the Buddha-nature in the robot," which is the title of an important chapter in *The Buddha in the Robot*. Following an expository review of his treatment of this subject, the principal author of this paper offers reflections on some broader issues that seem to be raised by Professor Mori's account.

Zen koans

A concise description of the use of *koans* is captured in the following remarks by Solomon Nigosian in his *World Religions: A Historical Approach*:

To achieve satori (enlightenment), one must practice zazen (sitting in meditation). The technique of the koan is employed to promote the experience of satori. The koan is a riddle or problem that cannot be solved by the intellect. Zen masters propose koans to students in an effort to heighten and develop their intuitive faculty, thus forcing them to reach beyond reasoning and attain satori. (184)

Many of us probably recognize a familiar question that is presented in one of the several hundred traditional *koans*: "What is the sound of one hand clapping?" Others mentioned by Nigosian include "What was your original face before your parents begot you?" and "All things return to the one: what does the one return to?" (184). Recognizing that the *koan* typically resists any logical analysis, the author adds the following important explanation of its *purpose*:

The purpose of the exercise is to realize one's own Buddha nature, to accept the limitations of human reasoning, and to probe beyond the barriers of rational thinking to insight. [emphasis added] (184)

Matthews, in his *World Religions* text, also explains the intended effect of the *koan* in terms that are quite pertinent to the aims of this paper:

A few examples of koans illustrate that focusing the mind on a problem can destroy usual forms of logic and, perhaps, bring a flash of insight into the nature of self and world. (124)

The reader is encouraged to bear in mind this phrase, "nature of self and world," as we turn now to

Professor Mori's account of the Buddha-nature in the robot.

Professor Mori's Account of "The Buddha-nature in the Robot"

Defining the concept of Buddha-nature

As he explains the concept "Buddha-nature," in *The Buddha in the Robot*, Mori leaves little doubt about its locus:

The Buddha said that "all things" have the buddha-nature, and "all things" clearly means not only all living beings, but the rocks, the trees, the rivers, the mountains as well. There is buddha-nature in dogs and in bears, in insects and in bacteria. There must also be buddha-nature in the machines and robots that my colleagues and I make. (174)

If one operates with a materialist metaphysic, this description of the Buddha-nature probably suggests at once the scientific notion of matter-energy. However, as Mori proceeds to explain exactly how the Buddha-nature achieves its omnipresence, such simple identity begins to seem less appropriate:

The buddha-nature has no physical form and is not confined to one part of the body. It fills the whole and all the parts. The hands, the feet, every single hair contains the buddha-nature. Furthermore, the buddha-nature is present in the earth and in that which grows upon it. It is present in the wind and in the sea. It inhabits that which feels and that which does not feel; it is present in delusion as in enlightenment. Everything that exists is made of the buddha-nature. ... The buddha-nature, then, is the principle or law that moves everything. ... It is impossible for us to get outside the buddha-nature. (174)

Indeed, presence of the Buddha-nature in that which "feels," as well as that which does not – and its presence in "delusion" as well as "enlightenment" – betray a Buddhist worldview that seems to cross cut ordinary Western arguments about mind-body dualism.

Applying the concept of Buddha-nature to machines

Mori then proceeds to move toward applying this concept of the Buddha-nature to robots, beginning with the example of an automobile:

We are now in a better position to attack the problem of the robot's buddha-nature, but for a moment let us consider the machine that we call an automobile, which is considerably simpler than a robot. (176)

Now, the automobile is surely a machine that people in Western cultures feel they can understand. From the German Autobahn to the Santa Monica Freeway of California, automobiles are machines that people *use* every day. To be sure, they also view their automobiles as their *property*, and often come to *identify* with them and even to regard them as "extensions of themselves." Again, however, the exact wording that Mori employs in developing this example soon begins to sound less familiar – at least, to Western ears:

Depending on how you look at it, I could be regarded as managing the automobile, or it could be regarded as managing me. To control, in effect, is to be controlled: by driving the car properly I enable it to play a safe and useful role in life; but by controlling me, the automobile enables me to be a reliable and effective driver. The same relationship links human beings with all machines. They don't do what you want them to do unless you do what they force you to do. (177)

Mori refers to this sort of interdependency between human and machine as "the reciprocity of the relationship between men and machines" (178), and proceeds at once to illustrate it even with interaction between a thermostat and a room. Sensitivity to the holistic causal interconnectedness of all things is, of course, a signature feature of the Buddhist tradition. It appears under a variety of names, such as "dependent co-arising," and it fits comfortably with Mori's example of the thermostat and the room. Few Western readers would be likely to object to the observation of a causal co-determination being displayed in the case of the thermostat and the room. As Mori passes comfortably between this example and "the reciprocity of the relationship between men and machines," however, his Western readers may begin to feel less comfortable about his treatment of the notion of the free human agent; and Mori proceeds to acknowledge this possibility explicitly.

Treating the concept of free agency

In particular, Mori begins adding remarks about philosophically significant notions of *freedom* and *will*:

All right, you say, but it remains a fact that when men and machines are involved, men have wills and machines do not. Is it not an insult to the dignity of man to suggest that machines are not subordinate to him? This question, it seems to me, makes it necessary to ask just what human will is. (178)

At this point in Mori's account, we encourage the reader to remove his or her shoes and to tread carefully; some philosophically/theologically "holy ground" is covered *tacitly* as Mori's text proceeds:

I can produce a robot in such a way that when its batteries are about to give out it will automatically

seek a source of electricity – a socket or other outlet – and get them recharged. I can, in other words, endow the robot with a hunger instinct and the ability to satisfy it. To all appearances, when this robot begins to run out of power, it moves of its own free will to an electric socket that can revitalize it. Yet in truth I, the designer, give the robot its appetite; it is I who cause it to act as it acts. (178-179)

“To all appearances,” the robot “moves of its own free will,” but “in truth” the human designer has given it its “appetite,” *causing* it to act as it does. Clearly, Mori must not be intending to use the word “appetite,” here, in the sense of a *feeling of desire that a categorically free agent can experience subjectively*. The robot, after all, has been *created* and *designed* by the human engineer to *behave* as it does. On the other hand, Mori indicates throughout the book his presumption of human *freedom*. Does this mean that he presumes a distinction between behavioristic *appearance* of freedom (in the robot) and *authentic categorical* freedom in the case of the *human*? Not at all. Rather, he proceeds explicitly to *deny* exactly that understanding of *human* freedom:

Every movement of my hands or feet, every blink of my eyelids, is the result of the Buddha’s will. There is no way in which a human being’s body or mind can separate itself even momentarily from the Buddha’s laws. To express it differently, men are appearances brought into being by the Void. This is what Yuian Iwasawa meant when he said that “every single hair contains the buddha-nature.” (179)

If these remarks by Mori “read” like expressions of a characteristic Buddhist skepticism regarding the reality of a (characteristically Western) notion of a *categorically free person/self/ego*, then the reader most likely is understanding Mori’s intent correctly. In fact, the author’s account of “The Buddha-nature in the Robot” nears completion with the following manifesto:

In sum, a human being made by the Buddha and endowed by the Buddha with a will **necessarily** imposes that will upon a machine created by the Buddha. The truth is that everything in the universe is identical with the mind of the Buddha. That which controls and that which is controlled are both manifestations of the buddha-nature. **We must not consider that we ourselves are operating machines.** What is happening is that the buddha-nature is operating the buddha-nature. [emphasis added] (179)

Although Professor Mori states his account very clearly, some reflections on its broader implications in relation to “Western” thinking seem to be in order.

Issues Raised by Professor Mori’s Account

Mori wrote his book in a culture in which persons of the male persuasion were in control of much of society, as is evidenced in his mention of “men” and machines throughout his work. One of the machines he uses as an example is an automobile that is both controlled *by* the driver and in control *of* the driver. Although he apparently would need to be described as a compatibilist on the issue free will, his use of language tells us that he is even more of a determinist than he purports to be. For a man who strives to have no ego, I find it interesting that he is a leader in an industry that builds life-like robots that are diminutive in nature; that is, robots built in the image of those who are most often controlled in Japanese culture – children, women and pets. Popular robots include women as receptionists, Asimo as “boy fetchit,” and AIBO the dog. Even “Astro Boy”, despite his supra-human heroic nature, is a child.

Through the lens of the Buddha nature, denying the reality of ego, one cannot help but wonder how much of *human* nature is really being focused upon by Dr. Mori. Persons with “controlling behaviors,” through which they inflict the illusion of control upon persons of less power, are so numerous that they are in a category all to themselves as perpetrators of abusive behavior. Most of these people are so frightened that someone will control or define *them* that they seldom let down their ego-guard. In a culture in which women’s feet historically were bound in order to control their growth and subsequent mobility, the idea of control over less powerful people might be so ensconced as to be unnoticeable. But control – in Mori’s account – is at least a double-edged sword. If a car can control a driver, cannot a robot control a human being or another robot? Mori says the Buddha-nature in one is controlling the Buddha nature of the other.

On the one hand, Mori denies human ego; on the other he discusses issues of control where the machine controls the operator, just as the operator controls the machine. In one instance he is denying the existence of human beings as categorically *free* agents who build the robots and suggests that we are Buddha-nature peers *with* the robots. In the second instance he purports that human beings are free agents who are limited only by external circumstances (and robots have the same capacity to act as agents to control human behavior). I find these two positions to be incompatible, although I admit that I have Western religious biases and there may be a missing link in my understanding of the Buddha-nature.

Indeed, Western religions can display their own issues of control – as in cases of worshipping a deity who is ultimately in control of everything from a baby’s breath to a hurricane. Moreover, there are those instances when God is *not* believed to be in control; *Satan* is in control. Fear of being controlled by an evil spirit in a robot created by human beings (who are accused, in turn, of trying to

replace God) could certainly tend to inhibit growth of the personal robotics industry in this hemisphere. In such a culture of deterministic religious understandings, is it any wonder that a woman working in my home town department store would use only pencil and paper to total invoices because “the devil is in the calculator?”

Despite Mori’s seemingly incompatible understandings of human beings as agents or non-entities in the world of robotics, it is evident that the Buddhist-nature in the robot may, nevertheless, be the life-giving gift of the robotics industry. Buddhist cultures are more willing than Western Judeo-Christians to invite robots into their lives because they are inviting the Buddha into their lives in the form of a robot. This industrial advantage may breathe more life into Buddhist cultures and economies than ever before. Mori’s contribution to the world of science and religion is opening gateways to the future that Western cultures may ultimately be dragged through, kicking and screaming – and perhaps still arguing over whether or not robots are the work of the devil. In the process they may miss the opportunity to help determine whether robots will be tools used for helpful or destructive purposes.

The title of this paper is a variant on a common *koan*, in which the question is posed, “Has a dog the Buddha nature?” The traditional answer “Mu!,” which translates “no” or “not at all,” would present a paradox for the Buddhist student because Buddhist teaching insists that everything *has* the Buddha nature. In this context, one could hope that meditation on the question posed even by our paper title could produce a kind of supra-logical enlightenment. The incompatibilities that I have noted in Dr. Mori’s book actually might be resolved through Buddhist practice; however, in Western Christian thought, which relies heavily on reason, the conflicts might be more difficult to overcome. Such is the nature of this essay. The resolution of these issues is not easily apparent, but the issues do pose some questions that we may all have to consider in the near future.

Conclusion

Dr. Mori’s book comes from a culture where men have long been in control of much of society. One cannot help but wonder how much of *human* nature really is being focused upon in the chapter of Mori’s book that we’ve principally examined. On the one hand, Mori denies human ego; on the other he purports that machine operators are in control of machines while machines are in control their operators. In one instance he is denying the existence of human beings as categorically free agents who build robots and argues that we are Buddha-nature peers with the robots. In the second instance he urges that human beings are free agents who are limited only by external circumstances, and that robots have some capacity to act as agents to control human behavior

Despite Mori’s apparently paradoxical understandings of human beings both as authentic *agents* and as intentional *non-entities* in the world of robotics, it is plausible that his thesis of the Buddha-nature in the robot may yet be a life-giving gift of the robotics industry. People in Buddhist cultures may tend to be more willing than Western Judeo-Christians to invite robots into their lives because they are, in effect, inviting the Buddha into their lives. On a more practical note, this industrial advantage may breathe more life into Buddhist cultures and economies than ever before, leaving Western cultures still arguing about the good vs. evil natures of robots. Perhaps the Western cultures may be left in the dust *by* the Buddha in the robot?

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